

TWO NEW SPECIES OF LASIOPELTA MALLOCH FROM GUIZHOU, CHINA (DIPTERA, MUSCIDAE)

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Abstract Two new species of the genus *Lasiopelta* Malloch 1928 (Diptera: Muscidae), namely, *L. rufescens* Wei et Jiang sp. nov. and *L. flava* Wei et Cao sp. nov., are described and illustrated from Guizhou, Southwestern China. A key to known species of the genus is provided and *Lasiopelta maulipennis* group is set up. The type specimens of the new species are kept in the Centre for Disease Prevention and Control of Anshun City, Guizhou (CDPCAG).

Key words Diptera, Muscidae, *Lasiopelta*, key new species

The genus *Lasiopelta* Malloch 1928 is a small genus belonging to subfamily Mydaeinae (Diptera: Muscidae). Malloch (1928) established both *Lasiopelta* and *Pendleburyia* with the type species *Lasiopelta orientalis* from Malaya and *Mydaea longicornis* Stein, 1915 from Taiwan, respectively. Six species were recorded in the genus before this study. In this paper, 2 new species from Guizhou, southwestern China are described and illustrated. A key to the known species of the genus is provided.

Lasiopelta Malloch, 1928
Ann. Mag. Nat. Hist. (10) 2: 309. Type species *Lasiopelta orientalis* Malloch, 1928, by original designation. Synonym: *Pendleburyia* Malloch, 1928. *Ann. Mag. Nat. Hist.* (10) 2: 312. Type species *Pendleburyia longicornis* (Stein, 1915), by original designation.

The genus *Lasiopelta* Malloch is related to *Myocephala* Rondani, but can be separated from the latter by *pra* strong, at least as long as the posterior *npl* seta, and near from transverse suture, which is situated about 5 times as far from the supraalar seta as from transverse suture; otherwise, vein r_{4+5} setulose both above and below; stemite 1 haired.

Abbreviations used for characters: *a*-anterior seta; *acr*-acrostical seta; *ad*-antero-dorsal seta; *av*-antero-ventral seta; *C*-costa; *d*-dorsal seta; *dc*-dorsocentral seta; *f*₁, *f*₂, *f*₃-fore, mid and hind femur; *in*-intra-alar seta; *npl*-notopleuron seta; *pra*-prealar seta; *pv*-postero-ventral seta; *Sc*-subcosta. The type specimens of the new species are kept in Centre for Disease Prevention and Control of Anshun City, Guizhou (CDPCAG).

Key to known species of the genus *Lasiopelta* Malloch

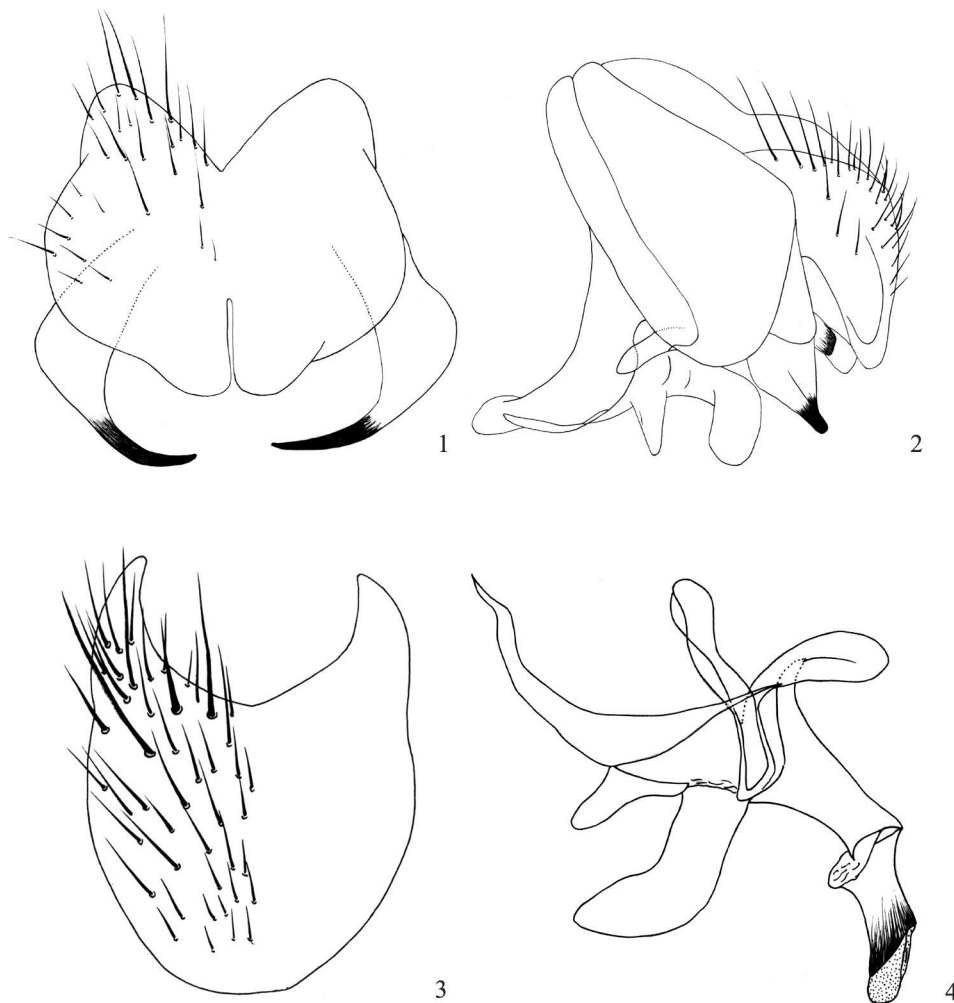
- 1. Prosternum hairy 7
- Prosternum bare 2
- 2. Male frons rather wider, at least close 2 times of ocellar triangle width 3

- Male frons narrow, as wide as anterior ocellar width 6
- 3. Male frons somewhat narrower than 2 times of ocellar triangle width; meron haired below and in front of spiracle and above hind coxae; abdomen uniformly glossy pitch (Malaya)
..... *L. orientalis* Malloch, 1928
- Male frons as wide as 3 times of ocellar triangle; meron entirely bare; abdomen not as dark as glossy pitch 4
- 4. Male wing with a large dark brownish suffused spot on apical third $\frac{1}{2}$ with 1 *ad* and 5 *av*, respectively (China, Guizhou)
..... *L. maulipennis* Wei, 1992
- Male wing hyaline; $\frac{1}{2}$ with 2 *ad* and at most 4 *av*, respectively ...
..... 5
- 5. Frontal seta 5 dorsum of thorax with 5 longitudinal vittae viewed from hind; submedian vittae far away from scutoscuteellar suture; notopleuron bears 1 hair below 2nd *npl* seta; crossvein m-m unclouded; $\frac{1}{2}$ with 4 *av*; abdomen without affirmed spot (China, Guizhou) *L. rufescens* Wei et Jiang sp. nov.
- Frontal seta 2 dorsum of thorax with 4 longitudinal vittae viewed from hind; submedian vittae directly reaching to scutoscuteellar suture; notopleuron bare; crossvein m-m clouded; $\frac{1}{2}$ with 1 *av*; abdomen with clear dark brown L-shape spot (China, Guizhou)
..... *L. flava* Wei et Cao sp. nov.
- 6. Upper auxiliary prostigmal seta distinctly; scutellum bare below lateral surface; female frons narrow, with two sides parallel (Malaya, Sarawak, Viet Nam) *L. similis* Malloch, 1928
- Upper auxiliary prostigmal seta as fine as hair; scutellum with dark hairs below lateral surface; female frons as wide as 1/3 of head-width, becoming wider in mid (Burma, India, Nepal)
..... *L. septentrionalis* (Emden, 1965)
- 7. Dc 2 + 4 vein r_{4+5} with setulose only reaching to mid from radial node to crossvein rm (Burma, Malaya)
..... *L. secunda* (Malloch, 1935)
- Dc 2 + 3 vein r_{4+5} with setulose almost reaching to crossvein rm (Burma, Malaya, Taiwan, Burma, Jawa, Malaya)
..... *L. longicornis* (Stein, 1915)

***Lasiopelta rufescens* Wei et Jiang sp. nov.** (Figs 1-4)

Male. Body length about 7 mm. Reddish-brown species.

Head. Eye bare. Anterior inner facets are slightly larger. Profrons almost right angle. Frons dark-brown, rather wider, which somewhat becoming wider frontly and about as wide as 0.37 times of head

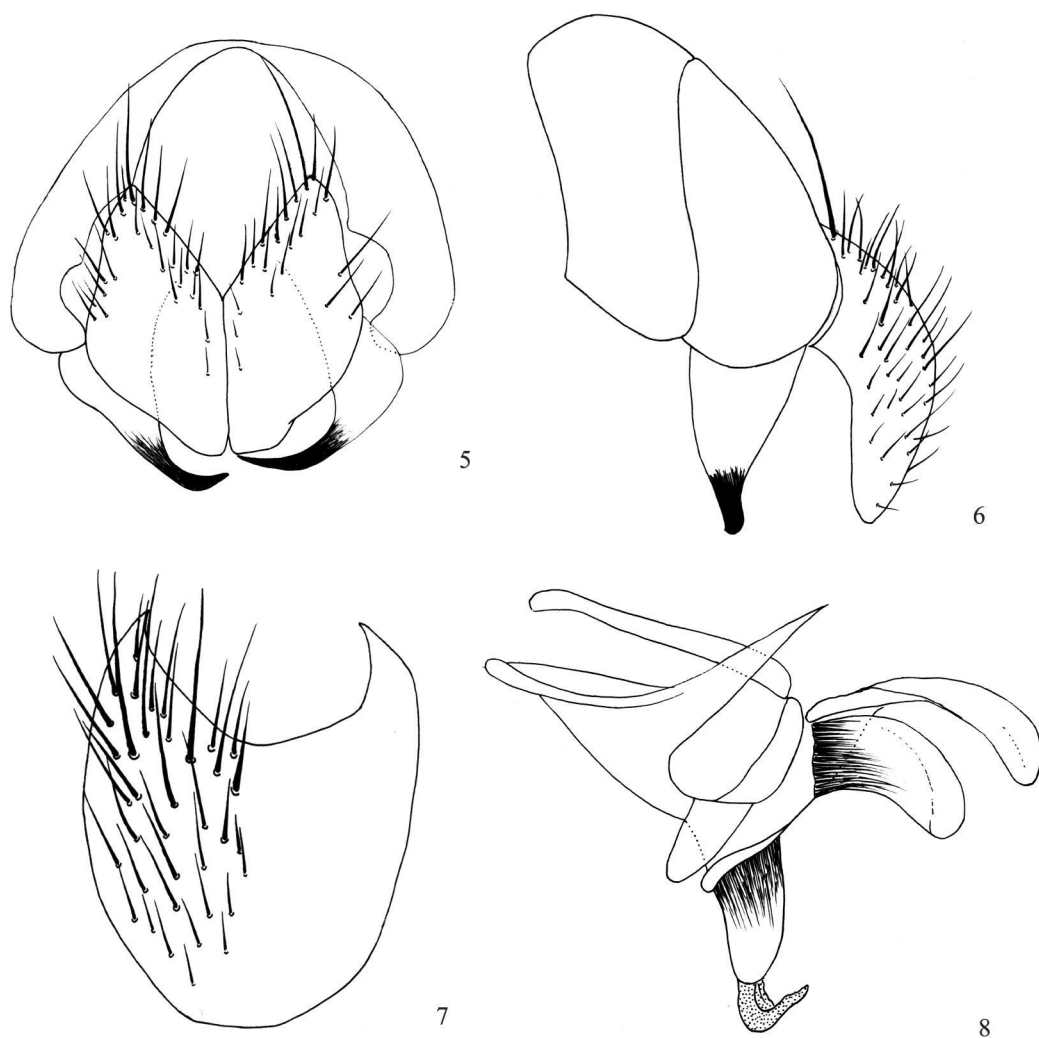


Figs 1-4. *Lasiopepla nufesanta* Wei et Jiang sp. nov. 1. Cercus in posterior view. 2. Cercus in profile. 3. Sternite 5 in ventral view. 4. Genitalia in profile.

width in the widest Parafrontalia yellow-brown pollinose, which about as wide as $1/5$ of frontal vitta-width. Frontal vitta absent from pruinosity, dark-brownish. Frontal triangle very narrow, which is long cone, about reaching to mid of frontal vitta. Inner vertical seta strong. Outer vertical seta developed. Postocellar seta strong, longer than anterior upper orbital seta, but weaker than posterior one. Postvertical seta weaker than postocellar seta. Reclinate orbital seta 2. Frontal seta 5, the uppermost one undeveloped. The outer of frontal seta row with hairs, which are in one row, and becoming 4 rows anteriorly. Ocellus seta rather strong. Antennae yellow, with flagellomere and pedicel brown-yellow, in which the former larger, about 4 times as long as wide or 4 times as long as the latter. The width between end of flagellomere and mouth margin about $1/2$ times of flagellomere-width. Arista yellow, with long plumose, in which the longest rays about 1.5 times as long as flagellomere-width. Parafacial concolorous with parafrontalia, but clearly paler, appearing pure yellow, becoming very narrow

downwards, the lower part of which at most about wider than in basal thick of arista. Vibrissa strong. Face remarkably concaved, with same colour as parafacial. Facial ridge is strip-like, concolorous with parafacial. Mouth margin protruded, but behind profrons. Gena yellow-brown dusted, about $2/13$ of eye-height or equal to flagellomere-width. Palpus red yellow. Pronotum yellow. Labella developed. Occiput yellow, but upper part darker, which with black setulose.

Thorax Red-brownish, with dorsum yellow-brownish, covered with grey pruinosity thinly, and 5 longitudinal vittae present viewed from posterior, in which the median one absent from pruinosity, occurring yellow-brownish basal colour, and the rest vittae darker, and submedian vittae far away from scutoscutellar suture. Only one pair of *acr* before scutoscutellar suture, which clearly developed. Hairs between *dc* row before transverse suture about in 7 rows. *Dc* 2+3. Supraalar seta 2, posterior one weaker. *Pra* longer, about as long as posterior *npl*. *Ia* 0+2, posterior one stronger than anterior one. Notopleuron



Figs 5-8 *Lasioptella flava* Wei et Cao sp. nov. 5 Cercus in posterior view. 6 Cercus in profile. 7. Sternite 5 in ventral view. 8 Genitalia in profile

bears 1 hair below 2^{nd} *npl*. Katepisternal setae 1: 2. Prosternum bare, propisternum, anepimeron, meron, katepimeron, postalar wall and anatergite bare. Spiracle yellow. Scutellum yellow, with dorsum brown-yellow, which bare ventrally but lateral surface with black setae on upper part which extend from dorsum downward to beyond level of scutellum marginal seta.

Wing Yellow, with veins brown-yellow. Basicosta yellow. Crossvein *rm* brownish clouded. Vein *C* haired ventrally, but 5^{th} and 6^{th} sections bare. Spine retrograde. Vein *Sc* curved in bow-shaped. Radial node haired dorsally and ventrally. Vein r_{4+5} setubased both above and below, and reaching to crossvein *rm*, in which ones on dorsum exceed crossvein *rm*. Vein m_{1+2} slightly curved forwardly. Calypter yellow, the lower one tongue-shaped, far away from lateral side of scutellum. Halter yellow, with head brownish.

Leg Yellow, with distal three tarsi brownish. T_1

with 1 *p*, undeveloped. F_2 without *a*, but with 1 *ad* and 2 *pd* preapically. T_2 with 8 spine-like *p*, in which about 3 stronger than others. F_3 with entire and developed *ad* row, 2 stronger *av* distally, and 1 preapical *pd*, and a row of small *p* present, *pv* absent. T_3 with 4 *av* and 2 *ad*.

Abdomen Dark-brownish yellow basally, without clear spots dorsally. Tergites 1 + 2 dark hindly. Tergites 3-4 yellow anteriorly, but the later darker than the former. Tergite 5 black, brown-redish apically. Tergites 1-5 without clearly developed marginal seta, but tergites 4-5 with developed lateral marginal seta. Tergite 4 with erect thick and tough lateral discal seta. Tergite 5 with entire but untidy discal seta. Terminalia as Figs 5-8.

♀ Unknown

Holotype ♂, Jiaozishan Forest Farm, (26.2°N, 105.9°E; alt 1400 m), Anshun, Guizhou, 25 Aug 1993, collected by WEI Lianmeng.

This new species is related to *L. flava* Wei et Cao.

sp. nov., but can be separated from each other by below descriptions of the latter

Etymology. The species name is from Latin word “*rufescent*”, meaning “reddish”, which refers to its reddish body.

Lasiopelta flava Wei et Cao, sp. nov. (Figs 5-8)

Yellow-brownish species Male Body length about 5.1 mm. Similar to *L. rufescenta* Wei et Jiang sp. nov. but different from the latter as follows: frons about as wide as 0.35 times of head-width in the widest anteriorly. Parafrontalia about as wide as 1/6 of frontal vitta-width. Ocellar triangle narrower than in the latter, reaching to anterior margin of frons. Postocellar seta thinner and longer than that of the latter. Frontal seta 2. Antennae soil yellow, with flagellomere about 3.0 times as long as wide or about 3.9 times as long as pedicel. The width between end of flagellomere and mouth margin about 0.6 times of flagellomere-width. Arista with the longest rays about 1.2 times as long as flagellomere-width. Facial ridge narrower than that of the latter, which visible only distally and laterally. Gena about 0.17 times of eye-height or about 0.8 times of flagellomere-width. Palpus yellow.

Thorax Yellow-brown with dorsum 4 longitudinal vittae present in which submedian ones directly reaching to scutoscuteellar suture. Hairs between *dc* row before transverse suture about in 8 rows. Supracalar seta 2, but that of left side 3 in holotype. Notopleuron bare.

Crossvein m-m clouded. Vein *r*₄₊₅ setulose, not exceeding crossvein *r-m* dorsally and ventrally. Calypter yellow-brown.

T₁ with no seta medially. **F₂** with 1 *p* at preapex. **T₂** with 8 spine-like *p*, too, but shorter than in the latter, and topmost one stronger. **T₃** with *av* only 1.

Abdomen yellow. Tergites 1+2 to tergite 5 with L-shape spots posteriorly. Terminalia as Figs 5-8.

♀ Unknown

Holotype ♂, Fenghuangshan Forest Fam, (26.2°N, 105.9°E; alt 1300 m), 21 Feb 2009,

Ganpu, Anshun, Guizhou. Paratype 1 ♂, same data as holotype, collected by WEI Lian-Meng, JIANG Shao-Gui, CAO Wei-Ping, WU J-L and LIU Mei-Hua.

Both two species in this paper and *L. maculipennis* Wei 1992 may be consist of a group, *maculipennis*-group based on below characters: ♂ frons as wide as 3 times of ocellar triangle; meron bare; terminalia curved and surstylus unforked and well sclerotized distally and the latter pointed apically; stemite 5 with end of lateral lob tapered off to point and curved innerly.

Etymology. The species name is from Latin word “*flava*”, meaning “yellow”, which refers to body is yellow.

REFERENCES

- Emden, F. I. van. 1965. Muscidae Fauna India (Diptera) (1): 1-647.
- Fan, Z-D. 1992. Key to the Common Flies of China (2nd ed). Science Press, Beijing.
- Hennig, W. 1955-64. Muscidae. Fliegen Palaearkt. Reg. 7 (1): 1-1110.
- Malloch, J. R. 1928. Exotic Muscaridae (Diptera). X. XII. *Ann. Mag. Nat. Hist.*, 2 (10): 307-319.
- Malloch, J. R. 1935. Exotic Muscaridae (Diptera). XX. XI. *Ann. Mag. Nat. Hist.*, 16 (10): 217-240.
- Pont, A. C. 1977. Family Muscidae. In: Delfinado, M. D. and Hardy, D. E. (eds), A Catalog of Diptera of the Oriental Region. The University Press of Hawaii, Honolulu, 3: 497-498.
- Vockeroth, J. R. 1972. A review of the world genera of Mydaciinae with a revision of the species of New Guinea and Oceania (Diptera: Muscidae). *Pacif. Ins. Mon.*, 29: 1-134.
- Wei, L-M. 1992. A new species of the genus *Lasiopelta* (Diptera: Muscidae). *Acta Entomologica Sinica*, 35 (1): 108-109.
- Xue, W-Q. 1996. Muscidae: *Lasiopelta*. In: Xue W-Q and Zhao J-M (eds), Flies of China. Liaoning Science and Technology Press, 1073-1074.
- Yang, Z-H, Wei, L-M and Yang, M-F. 2010. A new species of *Cnephidion* in *tepian* Kertész (Diptera: Statiomyidae) from Yunnan, China. *Acta Zootaxonomica Sinica*, 35 (1): 81-83. [杨再华, 魏濂, 杨茂发, 2010. 中国云南等额水虻属一新种记述 (双翅目, 水虻科). 动物分类学报, 35 (1): 81~83].
- Yang, Z-H, Wei, L-M and Yang, M-F. 2010. A new species of the genus *Eudmesta* Wiedeman (Diptera: Statiomyidae) from China. *Acta Zootaxonomica Sinica*, 35 (2): 330-333. [杨再华, 魏濂, 杨茂发, 2010. 中国优多水虻属一新种记述 (双翅目, 水虻科). 动物分类学报, 35 (2): 330~333].

中国贵州毛盾蝇属二新种记述（双翅目，蝇科）

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摘 要 记述采自贵州地区的毛盾蝇属 *Lasiopelta* Malloch 2 新种：红棕毛盾蝇 *L. rufescens* Wei et Jiang sp. nov. 和黄色毛盾蝇，*L. flava* Wei et Cao sp. nov.。文中编制了该属所有已知种的检索表、新种详细的形态特征及其与近缘种的鉴别特征；并建立了斑翅毛盾蝇群 *Lasiopelta maculipennis*-group。新种的模式标本保存于作者所在单位。

红棕毛盾蝇，新种 *Lasiopelta rufescens* Wei et Jiang sp. nov. (图 1~4)
新种十分类似于下述的黄色毛盾蝇 *Lasiopelta flava* Wei et Cao sp. nov., 但新种额鬃 5 胸背后面观 5 纵条，背侧片在后背侧片鬃的下方具 1 个刚毛；前胫近中位具 1 个后鬃，后胫前腹鬃 4；腹背板无明确的斑。

正模 ♂，贵州安顺轿子山林场，1 400 m，1993-08-25 魏濂贻采。
词源：拉丁词 “*rufescens*” 意为“带红色的”，在此指新种的体色。

关键词 双翅目，蝇科，毛盾蝇属，检索表，新种。
中图分类号 Q969.453.8

黄色毛盾蝇，新种 *Lasiopelta flava* Wei et Cao sp. nov. (图 5~8)

新种非常类似上述的红棕毛盾蝇 *Lasiopelta rufescens* Wei et Jiang sp. nov., 但新种额鬃 2 胸背后面观具 4 纵条，背侧片裸；前胫无近中位鬃，后胫前腹鬃 1；腹背板具暗褐色“L”形斑。

根据下列特征，报道的 2 新种与斑翅毛盾蝇 *Lasiopelta maculipennis* Wei 1992 可以考虑建立斑翅毛盾蝇群 *maculipennis*-group 雄额如单眼三角宽的 3 倍；下侧片裸；尾器：肛尾叶与侧尾叶不分叉，端部强烈骨化，且后者末端尖锐；第 5 腹板侧叶端部腹面观收缩变尖锐，向内弯曲。

正模 ♂，贵州安顺甘堡凤凰山林场，1 300 m，2009-02-21，魏濂贻、蒋绍贵、曹维平、吴建霖、刘美华等采集；副模 1 ♂，同正模。

词源：拉丁词 “*flava*” 意为“黄色的”，在此指新种体呈黄色。